

# CpGinternucleotidelinkage.txt

b biochem biosci biotech medicine

? e au=krieg, a?

Ref	Items	Index-term
E1	4	AU=KRIEG, A.H.
E2	4	AU=KRIEG, A.M.
E3	0	AU=KRIEG, A?
E4	5	AU=KRIEG, ADAM J
E5	10	AU=KRIEG, ADAM J.
E6	2	AU=KRIEG, ADAM JEREMY
E7	1	AU=KRIEG, ADRIAN
E8	2	AU=KRIEG, ADRIAN H
E9	2	AU=KRIEG, AF
E10	2	AU=KRIEG, AH
E11	1	AU=KRIEG, AJ
E12	17	AU=KRIEG, ALEXANDER
E13	1	AU=KRIEG, ALEXYS R
E14	1	AU=KRIEG, ALEXYS R.
E15	1	AU=KRIEG, ALOYS
E16	7	AU=KRIEG, ALOYSIUS
E17	135	AU=KRIEG, AM
E18	15	AU=KRIEG, AM*
E19	7	AU=KRIEG, ANDREAS
E20	1	AU=KRIEG, ANDREAS H.
E21	1	AU=KRIEG, ARIBERT
E22	6	AU=KRIEG, ARTHUR
E23	1	AU=KRIEG, ARTHUR F
E24	11	AU=KRIEG, ARTHUR F.
E25	58	AU=KRIEG, ARTHUR M

Enter PAGE for more

? s e1-e25

	4	AU=KRIEG, A.H.
	4	AU=KRIEG, A.M.
	0	AU=KRIEG, A?
	5	AU=KRIEG, ADAM J
	10	AU=KRIEG, ADAM J.
	2	AU=KRIEG, ADAM JEREMY
	1	AU=KRIEG, ADRIAN
	2	AU=KRIEG, ADRIAN H
	2	AU=KRIEG, AF
	2	AU=KRIEG, AH
	1	AU=KRIEG, AJ
	17	AU=KRIEG, ALEXANDER
	1	AU=KRIEG, ALEXYS R
	1	AU=KRIEG, ALEXYS R.
	1	AU=KRIEG, ALOYS
	7	AU=KRIEG, ALOYSIUS
	135	AU=KRIEG, AM
	15	AU=KRIEG, AM*
	7	AU=KRIEG, ANDREAS
	1	AU=KRIEG, ANDREAS H.
	1	AU=KRIEG, ARIBERT
	6	AU=KRIEG, ARTHUR
	1	AU=KRIEG, ARTHUR F
	11	AU=KRIEG, ARTHUR F.
	58	AU=KRIEG, ARTHUR M
S1	295	S E1-E25

? s s1 and internucleotide

295	S1
5451	INTERNUCLEOTIDE

S2 3 S S1 AND CpGinternucleotidelinkage.txt  
INTERNUCLEOTIDE

```
? e au=samulowitz, u?
Ref Items Index-term
E1 1 AU=SAMULOWITZ, MICHAEL
E2 4 AU=SAMULOWITZ, U
E3 0 AU=SAMULOWITZ, U?
E4 22 AU=SAMULOWITZ, ULRIKE
E5 1 AU=SAMULOWSKA, BARBARA
E6 2 AU=SAMULOWSKI, W.
E7 1 AU=SAMULS S
E8 1 AU=SAMULSEN, DM
E9 3 AU=SAMULSKA EWA
E10 2 AU=SAMULSKA H
E11 2 AU=SAMULSKA H M
E12 2 AU=SAMULSKA HANNA
E13 2 AU=SAMULSKA J
E14 1 AU=SAMULSKA J.
E15 2 AU=SAMULSKA-ROZWADOWSKA B
E16 4 AU=SAMULSKA-ROZWADOWSKA, BARBARA
E17 2 AU=SAMULSKA, E.
E18 1 AU=SAMULSKA, HANNA
E19 1 AU=SAMULSKA, JADWIGA
E20 1 AU=SAMULSKA, M.
E21 24 AU=SAMULSKI
E22 1 AU=SAMULSKI C
E23 1 AU=SAMULSKI D.M.
E24 1 AU=SAMULSKI E
E25 148 AU=SAMULSKI E T
Enter PAGE for more
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? s e2-e4
4 AU=SAMULOWITZ, U
0 AU=SAMULOWITZ, U?
22 AU=SAMULOWITZ, ULRIKE
S3 26 S E2-E4
```

```
? s s3 and internucleotide
26 S3
5451 INTERNUCLEOTIDE
S4 2 S S3 AND INTERNUCLEOTIDE
```

```
? e au=vollmer, j?
Ref Items Index-term
E1 1 AU=VOLLMER, J*
E2 1 AU=VOLLMER, J-Y
E3 0 AU=VOLLMER, J?
E4 1 AU=VOLLMER, JAMES
E5 6 AU=VOLLMER, JAMES M
E6 16 AU=VOLLMER, JAMES M.
E7 2 AU=VOLLMER, JAMES MICHAEL
E8 1 AU=VOLLMER, JANICE
E9 1 AU=VOLLMER, JANS JUERGEN
E10 2 AU=VOLLMER, JASON
E11 1 AU=VOLLMER, JEAN P.
E12 3 AU=VOLLMER, JEAN PIERRE
E13 7 AU=VOLLMER, JEAN-YVES
E14 1 AU=VOLLMER, JEANETTE
E15 1 AU=VOLLMER, JENNIFER L.
E16 1 AU=VOLLMER, JENNIFER M.
E17 2 AU=VOLLMER, JENNIFER SUE LANDWEHR
E18 1 AU=VOLLMER, JENS
E19 1 AU=VOLLMER, JH
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# CpGinternucleotidelinkage.txt

```
E20      1 AU=VOLLMER, JIRG
E21      1 AU=VOLLMER, JL
E22      3 AU=VOLLMER, JOACHIM
E23      39 AU=VOLLMER, JOERG
E24      3 AU=VOLLMER, JOHN
E25      1 AU=VOLLMER, JOHN EDWARD
Enter PAGE for more
```

? page

```
Ref  Items  Index-term
E26      1 AU=VOLLMER, JOHN H.
E27      5 AU=VOLLMER, JOHN J.
E28      15 AU=VOLLMER, JOHN J.
E29      1 AU=VOLLMER, JOHN JOCHEN
E30      8 AU=VOLLMER, JOHN W.
E31      19 AU=VOLLMER, JORG
E32      1 AU=VOLLMER, JOSEPH
E33      2 AU=VOLLMER, JOSEPH G.
E34      2 AU=VOLLMER, JOSEPH GERARD
E35      1 AU=VOLLMER, JOSEPH H.
E36      1 AU=VOLLMER, JOSEPH HARRY
E37      3 AU=VOLLMER, JR., H.D.
E38      3 AU=VOLLMER, JUDITH
E39      11 AU=VOLLMER, JUERGEN
E40      21 AU=VOLLMER, JURGEN
E41      2 AU=VOLLMER, K
E42      12 AU=VOLLMER, K.
E43      1 AU=VOLLMER, K. - O.
E44      37 AU=VOLLMER, K. O.
E45      1 AU=VOLLMER, K. OTTO
E46      13 AU=VOLLMER, K.-H.
E47      8 AU=VOLLMER, K.-O.
E48      1 AU=VOLLMER, K.P.
E49      1 AU=VOLLMER, K-O
E50      3 AU=VOLLMER, KARL O.
Enter PAGE for more
```

? s e31

```
S5      19 AU='VOLLMER, JORG'
```

? s s5 and internucleotide

```
19      S5
5451    INTERNUCLEOTIDE
S6      1 S S5 AND INTERNUCLEOTIDE
```

? e au=uhlmann, e?

```
Ref  Items  Index-term
E1      6 AU=UHLMANN, E.V.
E2      2 AU=UHLMANN, E*
E3      0 AU=UHLMANN, E?
E4      58 AU=UHLMANN, ECKART
E5      1 AU=UHLMANN, ECKHARDT
E6      5 AU=UHLMANN, EJ
E7      6 AU=UHLMANN, ELISABETH
E8      3 AU=UHLMANN, ERIC
E9      1 AU=UHLMANN, ERIC LUIS
E10     1 AU=UHLMANN, ERICH
E11     3 AU=UHLMANN, ERIK
E12     5 AU=UHLMANN, ERIK J
E13     14 AU=UHLMANN, ERIK J.
E14     1 AU=UHLMANN, ERNST
E15     1 AU=UHLMANN, ERNST-AXEL
E16     1 AU=UHLMANN, ESTHER
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## CpGinternucleotidelinkage.txt

```

E17      560 AU=UHLMANN, EUGEN
E18      2 AU=UHLMANN, EUGEN DR
E19      1 AU=UHLMANN, EUGENE
E20      3 AU=UHLMANN, EUGENIE V
E21      8 AU=UHLMANN, EUGENIE V.
E22      2 AU=UHLMANN, EUGENIE VICTORIA
E23      31 AU=UHLMANN, F
E24      7 AU=UHLMANN, F H
E25      2 AU=UHLMANN, F HERMANN
Enter PAGE for more

```

```

? s e17-e18
      560 AU=UHLMANN, EUGEN
      2 AU=UHLMANN, EUGEN DR
S7      562 S E17-E18

```

```

? s s7 and internucleotide
      562 S7
      5451 INTERNUCLEOTIDE
S8      4 S S7 AND INTERNUCLEOTIDE

```

```

? e au=jurk, m?
Ref  Items  Index-term
E1    11 AU=JURK, M
E2    21 AU=JURK, M.
E3     0 AU=JURK, M?
E4    31 AU=JURK, MARION
E5     1 AU=JURK, MARTINA
E6    16 AU=JURK, R.
E7     4 AU=JURK, REINHARD
E8     1 AU=JURK, REN
E9     8 AU=JURK, RENE
E10    1 AU=JURK, ROBERT
E11    2 AU=JURK, ROLF
E12    3 AU=JURK, S
E13    9 AU=JURK, S.
E14    1 AU=JURK, SANDRA
E15    1 AU=JURK, STEFANIE
E16    2 AU=JURK, T.
E17    1 AU=JURK' JAN, O. V.
E18    3 AU=JURKA
E19   44 AU=JURKA A
E20   10 AU=JURKA A.
E21   20 AU=JURKA ANTRA
E22    1 AU=JURKA C E
E23    9 AU=JURKA E
E24    1 AU=JURKA E.
E25    1 AU=JURKA EM
Enter PAGE for more

```

```

? s e1-e4
      11 AU=JURK, M
      21 AU=JURK, M.
      0 AU=JURK, M?
      31 AU=JURK, MARION
S9     63 S E1-E4

```

```

? s s9 and internucleotide
      63 S9
      5451 INTERNUCLEOTIDE
S10    0 S S9 AND INTERNUCLEOTIDE

```

```

? e au=jurk, marion

```

## CpGinternucleotidelinkage.txt

Ref	Items	Index-term
E1	11	AU=JURK, M
E2	21	AU=JURK, M.
E3	31	AU=JURK, MARION
E4	1	AU=JURK, MARTINA
E5	16	AU=JURK, R.
E6	4	AU=JURK, REINHARD
E7	1	AU=JURK, REN
E8	8	AU=JURK, RENE
E9	1	AU=JURK, ROBERT
E10	2	AU=JURK, ROLF
E11	3	AU=JURK, S
E12	9	AU=JURK, S.
E13	1	AU=JURK, SANDRA
E14	1	AU=JURK, STEFANIE
E15	2	AU=JURK, T.
E16	1	AU=JURK, JAN, O. V.
E17	3	AU=JURKA
E18	44	AU=JURKA A
E19	10	AU=JURKA A.
E20	20	AU=JURKA ANTRA
E21	1	AU=JURKA C E
E22	9	AU=JURKA E
E23	1	AU=JURKA E.
E24	1	AU=JURKA EM
E25	3	AU=JURKA F

Enter PAGE for more

? s e1-e3

11	AU=JURK, M
21	AU=JURK, M.
31	AU=JURK, MARION

S11 63 S E1-E3

? s s11 and internucleotide

63	S11
5451	INTERNUCLEOTIDE

S12 0 S S11 AND INTERNUCLEOTIDE

? s s11 and phospho?

Processing

Processing

Processing

63	S11
6026451	PHOSPHO?

S13 12 S S11 AND PHOSPHO?

? e au=lipford, g?

Ref	Items	Index-term
E1	2	AU=LIPFORD, G.
E2	26	AU=LIPFORD, G. B.
E3	0	AU=LIPFORD, G?
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E5	3	AU=LIPFORD, GB*
E6	21	AU=LIPFORD, GRAYSON
E7	8	AU=LIPFORD, GRAYSON B
E8	59	AU=LIPFORD, GRAYSON B.
E9	2	AU=LIPFORD, GRAYSON BERNARD
E10	3	AU=LIPFORD, J
E11	3	AU=LIPFORD, J.
E12	11	AU=LIPFORD, J. R.
E13	12	AU=LIPFORD, J. RUSSELL
E14	1	AU=LIPFORD, J.T.

# CpGinternucleotidelinkage.txt

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E15      6 AU=LIPFORD, JAMES
E16      4 AU=LIPFORD, JAMES R.
E17      1 AU=LIPFORD, JODY WOODS
E18      6 AU=LIPFORD, JR
E19      3 AU=LIPFORD, JRUSSELL
E20      3 AU=LIPFORD, KEITH
E21      2 AU=LIPFORD, L. C.
E22      1 AU=LIPFORD, LEVIN C
E23      4 AU=LIPFORD, LEVIN C.
E24      1 AU=LIPFORD, M. L.
E25      1 AU=LIPFORD, M.L.
Enter PAGE for more

? s e1-e9
      2 AU=LIPFORD, G.
     26 AU=LIPFORD, G. B.
      0 AU=LIPFORD, G?
     44 AU=LIPFORD, GB
      3 AU=LIPFORD, GB*
     21 AU=LIPFORD, GRAYSON
      8 AU=LIPFORD, GRAYSON B
     59 AU=LIPFORD, GRAYSON B.
      2 AU=LIPFORD, GRAYSON BERNARD
S14     165 S E1-E9

? s s14 and internucleotide
      165 S14
     5451 INTERNUCLEOTIDE
S15     1 S S14 AND INTERNUCLEOTIDE

? e au=rankin, r?
Ref      Items      Index-term
E1       4 AU=RANKIN, R.W.
E2       1 AU=RANKIN, R.Y.
E3       0 AU=RANKIN, R?
E4       1 AU=RANKIN, RALPH
E5       1 AU=RANKIN, REBECCA
E6       1 AU=RANKIN, REBECCA B.
E7       2 AU=RANKIN, REES B
E8       23 AU=RANKIN, REES B.
E9       6 AU=RANKIN, RF
E10      3 AU=RANKIN, RIAAN
E11      1 AU=RANKIN, RIAAN E-MAIL: MGIRR@PUKNET.PUK.AC.ZA
E12      1 AU=RANKIN, RICH
E13      5 AU=RANKIN, RICHARD
E14      2 AU=RANKIN, RICHARD A.
E15      1 AU=RANKIN, RICHARD ALAN
E16      2 AU=RANKIN, RICHARD ALLEN
E17      1 AU=RANKIN, RICHARD ANDREW
E18      1 AU=RANKIN, RICHARD CLEMENT
E19      1 AU=RANKIN, RICHARD EUGENE, JR.
E20      2 AU=RANKIN, RICHARD F.
E21      1 AU=RANKIN, RICHARD JIMMY
E22      3 AU=RANKIN, RICHARD N
E23      12 AU=RANKIN, RICHARD N.
E24      1 AU=RANKIN, RICHARD PATRICK
E25      1 AU=RANKIN, RICHARD RAY
Enter PAGE for more

? e au=rankin, robert?
Ref      Items      Index-term
E1       1 AU=RANKIN, ROBERT STANLY
E2       1 AU=RANKIN, ROBERT W.

```

# CpGinternucleotidelinkage.txt

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E3      0 AU=RANKIN, ROBERT?
E4      1 AU=RANKIN, ROBERTA ANN
E5      1 AU=RANKIN, ROGER ALFRED
E6      1 AU=RANKIN, ROLFE MONTGOMERY
E7      1 AU=RANKIN, ROME
E8      1 AU=RANKIN, RONALD C.
E9      1 AU=RANKIN, ROS
E10     2 AU=RANKIN, ROSSLYN
E11     5 AU=RANKIN, ROY R.
E12     59 AU=RANKIN, S
E13     110 AU=RANKIN, S.
E14     1 AU=RANKIN, S. TARLETON, J.
E15     7 AU=RANKIN, S. A
E16     43 AU=RANKIN, S. A.
E17     2 AU=RANKIN, S. A.*
E18     27 AU=RANKIN, S. C.
E19     1 AU=RANKIN, S. D.
E20     1 AU=RANKIN, S. E
E21     33 AU=RANKIN, S. E.
E22     3 AU=RANKIN, S. E. S
E23     2 AU=RANKIN, S. E. S.
E24     2 AU=RANKIN, S. H.
E25     2 AU=RANKIN, S. J.
Enter PAGE for more

```

```

? s e1-e3
      1 AU=RANKIN, ROBERT STANLY
      1 AU=RANKIN, ROBERT W.
      0 AU=RANKIN, ROBERT?
S16   2 S E1-E3

```

```

? d s
Set    Items  Description
S1     295    S E1-E25
S2     3      S S1 AND INTERNUCLEOTIDE
S3     26     S E2-E4
S4     2      S S3 AND INTERNUCLEOTIDE
S5     19     AU=VOLLMER, JORG* FROM 5, 6, 24, 34, 40, 41, 45, 50, 65, 71, 72,
73, 76, 98, 103, 136, 143, 144, 154, 155, 156, 162, 172, 305, 369, 370, 393, 399,
434, 28, 35, 44, 91, 110, 135, 164, 185, 357, 391, 467, 8, 99, 266, 315, 358, 138,
149, 159, 444
S6     1      S S5 AND INTERNUCLEOTIDE
S7     562    S E17-E18
S8     4      S S7 AND INTERNUCLEOTIDE
S9     63     S E1-E4
S10    0      S S9 AND INTERNUCLEOTIDE
S11    63     S E1-E3
S12    0      S S11 AND INTERNUCLEOTIDE
S13    12     S S11 AND PHOSPHO?
S14    165    S E1-E9
S15    1      S S14 AND INTERNUCLEOTIDE
S16    2      S E1-E3

```

? s (phospho? and (internucleotide adj linkage) and stabilize and immunostimulatory)

```

Processing
Processing
6026451 PHOSPHO?
0       INTERNUCLEOTIDE ADJ LINKAGE
199701  STABILIZE
29426   IMMUNOSTIMULATORY
S17     0 S (PHOSPHO? AND (INTERNUCLEOTIDE ADJ LINKAGE) AND STABILIZE AND
IMMUNOSTIMULATORY)

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# CpGinternucleotidelinkage.txt

```

?
? s PHOSPHO? AND (INTERNUCLEOTIDE(w)LINKAGE) AND STABILIZE AND IMMUNOSTIMULATORY)
>>>w: Unmatched parentheses
>>>E: There is no result

?
? s (PHOSPHO? AND (INTERNUCLEOTIDE(w)LINKAGE) AND STABILIZE AND IMMUNOSTIMULATORY)
Processing
Processing
6026451 PHOSPHO?
5451 INTERNUCLEOTIDE
745081 LINKAGE
1131 INTERNUCLEOTIDE(w)LINKAGE
199701 STABILIZE
29426 IMMUNOSTIMULATORY
S18 0 S (PHOSPHO? AND (INTERNUCLEOTIDE(w)LINKAGE) AND STABILIZE AND
IMMUNOSTIMULATORY)

?
? s (immunostimulatory and (nucleotide(w)linkage) and modif? and stabil?)
Processing
Processing
3 IMMUNOSTIMULATORY
2619192 NUCLEOTIDE
745081 LINKAGE
672 NUCLEOTIDE(w)LINKAGE
6153564 MODIF?
4831268 STABIL?
S19 0 S (IMMUNOSTIMULATORY AND (NUCLEOTIDE(w)LINKAGE) AND MODIF? AND
STABIL?)

? s immunostimulatory and linkage
29426 IMMUNOSTIMULATORY
745081 LINKAGE
S20 236 S IMMUNOSTIMULATORY AND LINKAGE

? s s20 and phosphodiester
236 S20
35612 PHOSPHODIESTER
S21 19 S S20 AND PHOSPHODIESTER

? rd
>>>w: Duplicate detection is not supported for File 393.
Duplicate detection is not supported for File 391.
Records from unsupported files will be retained in the RD set.
S22 19 RD (UNIQUE ITEMS)

? t s22/3,k/1-8
>>>w: KWIC option is not available in file(s): 399
22/3,k/1 (Item 1 from file: 399) Links
CA SEARCH(R)
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145291047 CA: 145(15)291047j PATENT
Immunostimulatory oligonucleotides with stabilized internucleotide linkage for
treating cancer, allergy, asthma and infection
Inventor (Author): Krieg, Arthur M.; Samulowitz, Ulrike; Vollmer, Joerg
Location: USA
Assignee: Coley Pharmaceutical Group, Inc.; Coley Pharmaceutical GmbH
Patent: PCT International ; WO 200691915 A2 Date: 20060831
Application: WO 2006US6778 (20060224) *US 2005PV655931 (20050224)
Pages: 93pp.

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# CpGinternucleotidelinkage.txt

CODEN: PIXXD2

Language: English

Patent Classifications:

Class: A61K-000/A

Designated Countries: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BW; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; EG; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KM; KN; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; LY; MA; MD; MG; MK; MN; MW; MX; MZ; NA; NG; NI; NO; NZ; OM; PG; PH; PL; PT; RO; RU; SC; SD; SE; SG; SK; SL; SM; SY; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA  
Designated Regional: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IS; IT; LT; LU; LV; MC; NL; PL; PT; RO; SE; SI; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG; BW; GH; GM; KE; LS; MW; MZ; NA; SD; SL; SZ; TZ; UG; ZM; ZW; AM; AZ; BY; KG; KZ; MD; RU; TJ; TM

22/3,K/2 (Item 1 from file: 357) Links

Derwent Biotech Res.

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Patent Assignee: TORAY IND INC; UNIV OSAKA 2007

0453110 DBA Accession No.: 2008-11619 PATENT

Novel immunostimulatory oligonucleotide, useful as pharmaceutical for allergic disease e.g. pollen allergy or hepatitis such as viral hepatitis such as type B or hepatitis C and as adjuvant of vaccine pharmaceutical composition comprising oligonucleotide, useful as vaccine for prevention of allergy and hepatitis C virus infection

Author: IWAMURA T; NARUMI H; MASUMOTO H; KANEDA A; SONEDA A; AKIRA S

Patent Assignee: TORAY IND INC; UNIV OSAKA 2007

Patent Number: WO 2007139190 Patent Date: 20071206 WPI Accession No.: 2008-M01182 (200870)

Priority Application Number: JP 200746556 Application Date: 20070227

National Application Number: WO 2007JP61105 Application Date: 20070531

Language: Japanese

Novel immunostimulatory oligonucleotide, useful as pharmaceutical for allergic disease e.g. pollen allergy or hepatitis such as...

Abstract: DERWENT ABSTRACT: NOVELTY - An immunostimulatory oligonucleotide, is new. DETAILED DESCRIPTION - An immunostimulatory oligonucleotide, comprising a nucleotide sequence 5'-(G)MPXCGYQ(G)N-3'. C=cytosine; G=guanosine... is 16-37 nucleotides and excludes GGGGGGTGCCGATCGGCAGGG (SEQ ID No. 5). BIOTECHNOLOGY - Preferred Oligonucleotide: The immunostimulatory oligonucleotide containing base sequence having SEQ ID No. 59, has a base sequence of GGGGGGTGCCGATCGGCAGGG... (No. 54), and GGGGGGGGCGACGATCGTCG (SEQ ID No. 95) and GGGGGGTGACGATCGTCGGG (SEQ ID No. 97). The immunostimulatory oligonucleotide having SEQ ID No. 60 or 61 has a base sequence of GGGGGGTGATCGATCGCAGGG (SEQ ID No. 30) or GGGGGGGACGACGTCGTCGG (SEQ ID No. 40). The phosphorothioate modification of the phosphodiester linkage between a portion and whole nucleotide residue is carried out, preferably at G residue at... a dose of 0.1 pmol-10 micronsol, preferably 1 pmol-1 micronsol. EXAMPLE - The immunostimulatory oligonucleotide having SEQ ID No. 1 and SEQ ID No. 5 was produced by the...

E.C. Numbers:

22/3,K/3 (Item 2 from file: 357) Links

Derwent Biotech Res.

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0450953 DBA Accession No.: 2008-09462 PATENT

Novel CpG immunostimulatory oligonucleotide useful for inducing immune response e.g. interferon-alpha induction, treating cancer e.g. breast cancer, and for treating autoimmune disease, airway modeling and viral infection pharmaceutical composition comprising interferon-alpha obtained by gene expression, useful in treatment of cancer, autoimmune disease and virus infection

Author: DEBELAK H; UHLMANN E; JURK M

Patent Assignee: COLEY PHARM GMBH 2008

CpGinternucleotidelinkage.txt

Patent Number: WO 200868638 Patent Date: 20080612 WPI Accession No.: 2008-370765  
( 200856 )

Priority Application Number: US 847811 Application Date: 20060927

National Application Number: WO 2007I84389 Application Date: 20070925

Language: English

Novel CpG immunostimulatory oligonucleotide useful for inducing immune response e.g. interferon-alpha induction, treating cancer e.g...

Abstract: DERWENT ABSTRACT: NOVELTY - An CpG immunostimulatory oligonucleotide, is new. DETAILED DESCRIPTION - An CpG immunostimulatory oligonucleotide comprising R1YZR2, is new. R1,R2=lipophilic substituted nucleotide analog (L), nucleotide or linkage, preferably lipophilic substituted nucleotide analog (L); Y=pyrimidine nucleotide;and Z=purine, pyrimidine or basic... ..oligonucleotide has at least two 5'-ends. The two nucleotides of the oligonucleotide have stabilized linkage. The stabilized linkage is phosphorothioate, phosphorodithioate, methylphosphonate, methylphosphonothioate boranophosphonate, phosphoramidate, or dephospho linkage, either as enantiomeric mixture or as enantiomeric pure S-or R-configuration. The oligonucleotide having the sequence of R1YZR2, in which YZ has phosphodiester linkage or phosphorothioate linkage, R1Y has phosphorothioate linkage, ZR2 has phosphorothioate linkage, and all other nucleotides has phosphorothioate linkage. The oligonucleotide is free of microcarrier or lipid carrier. The oligonucleotide is A, B, C, ... ..The B class oligonucleotide has the sequence of 5'TCN1TX1X2CGX3X43'. The oligonucleotide comprises 3'-3' linkage or 5'-5' linkage. Preferred Method: The immune induction method further involves an antigen. The treatment method of cancer... ..at a dosage of 0.1 mu g-10 mg. ADVANTAGE - The oligonucleotide provides excellent immunostimulatory effect. EXAMPLE - No suitable example given.(117 pages)  
E.C. Numbers:

22/3,K/4 (Item 3 from file: 357) Links

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0448004 DBA Accession No.: 2008-06513 PATENT

New vaccine composition, useful for treating atherosclerosis or for increasing the level of high density lipoprotein-associated cholesterol (HDL-C) in the blood of an individual pharmaceutical composition comprising adjuvant and therapeutic protein, useful as vaccine for treatment of atherosclerosis

Author: RITTERSHAUS C W; THOMAS L J; KRIEG A M

Patent Assignee: COLEY PHARM GROUP INC; AVANT IMMUNOTHERAPEUTICS INC 2008

Patent Number: WO 200857529 Patent Date: 20080515 WPI Accession No.: 2008-G03624  
( 200838 )

Priority Application Number: US 859005 Application Date: 20061106

National Application Number: WO 2007US23353 Application Date: 20071106

Language: English

Abstract: ...portion linked to a helper T cell epitope portion; and (2) an adjuvant comprising an immunostimulatory oligonucleotide. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are: (1) a method of treating atherosclerosis in an individual... ..the vaccine composition or the antigenic hybrid polypeptide and an adjuvant.

BIOTECHNOLOGY - Preferred Composition: The immunostimulatory oligonucleotide is a DNA CpG oligonucleotide having at least one unmethylated CpG dinucleotide. The broad... ..oligonucleotide is a T class oligonucleotide. The CpG oligonucleotide comprises at least one 3'-3' linkage. The CpG oligonucleotide comprises at least one 5'-5' linkage. The vaccine composition further comprises a non-nucleotidic brancher moiety. The vaccine composition further comprises... ..least two 5'-ends. At least one nucleotide of the CpG oligonucleotide has a stabilized linkage. The stabilized linkage is phosphorothioate, phosphorodithioate, methylphosphonate, methylphosphonothioate, boranophosphonate, phosphoramidate, or a dephospholinkage. The CG dinucleotide has a phosphorothioate linkage. The CpG oligonucleotide has at least three CG dinucleotides. Each of the at least three CG dinucleotides has a phosphodiester or phosphodiester-like internucleotide linkage, and the oligonucleotide includes at least one stabilized internucleotide linkage. All other nucleotides have a phosphorothioate linkage. All nucleotides of the CpG oligonucleotide have a phosphorothioate linkage. The CpG oligonucleotide is

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5'TCGTCGTTTTCGTTTTCGTTT3' (SEQ ID NO: 3). The immunostimulatory oligonucleotide is an RNA oligonucleotide. The immunostimulatory oligonucleotide and antigenic hybrid polypeptide are administered simultaneously or sequentially. The composition comprises: (a) an... portion linked to a helper T cell epitope portion; and (b) an adjuvant comprising an immunostimulatory oligonucleotide for treating atherosclerosis in an individual. ACTIVITY - Metabolic; Antiarteriosclerotic. No biological data given.MECHANISM...  
E.C. Numbers:

22/3,K/5 (Item 4 from file: 357) Links  
Derwent Biotech Res.

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0446896 DBA Accession No.: 2008-05405 PATENT

New composition comprising immunostimulatory oligonucleotide and anti-viral agent, useful for treating a cancer, viral or bacterial infection pharmaceutical composition comprising immunostimulatory oligonucleotide, useful in treatment of cancer, virus and bacterium infection

Author: VOLLMER J; JURK M; UHLMANN E; DEBELAK H; BRATZLER R L; VICARI A  
Patent Assignee: COLEY PHARM GROUP INC; COLEY PHARM GMBH; COLEY PHARM GROUP LTD  
2008

Patent Number: WO 200839538 Patent Date: 20080403 WPI Accession No.: 2008-F00138  
( 200834 )

Priority Application Number: US 847408 Application Date: 20060927

National Application Number: WO 2007US21030 Application Date: 20070927

Language: English

New composition comprising immunostimulatory oligonucleotide and anti-viral agent, useful for treating a cancer, viral or bacterial infection pharmaceutical composition comprising immunostimulatory oligonucleotide, useful in treatment of cancer, virus and bacterium infection

Abstract: DERWENT ABSTRACT: NOVELTY - A composition comprising an immunostimulatory oligonucleotide and an anti-viral agent, where the anti-viral agent is not a C... ..substituted guanosine or an imidazoquinoline and where the anti-viral agent is linked to the immunostimulatory oligonucleotide, is new. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are: (1) a method for treating viral disease... ..composition;

(3) a method for screening for molecules containing an anti-viral agent and an immunostimulatory oligonucleotide that have anti-viral activity; (4) a method for treating cancer; and (5) a method for treating bacterial infection. BIOTECHNOLOGY - Preferred Composition: The immunostimulatory oligonucleotide is linked to the anti-viral agent directly. The immunostimulatory oligonucleotide is linked to the anti-viral agent indirectly. The immunostimulatory oligonucleotide and the anti-viral agent are part of the same molecule. The anti-viral... ..is one or more nucleotide analogs. The composition further comprises a nuclease susceptible site between immunostimulatory oligonucleotide and the anti-viral agent. The immunostimulatory oligonucleotide contains at least one 3'-3' or 5'-5' linkage. The composition further comprises a pharmaceutical carrier. The composition is sterile. The anti-viral agent is toxoribine, isatoribine, ribavirin, valopicitabine, BILN 2061, or VX-950. The immunostimulatory oligonucleotide comprises a chimeric backbone, RNA oligonucleotide, or DNA oligonucleotide. The DNA oligonucleotide is an... ..least one unmethylated CpG dinucleotide, where the at least one unmethylated CpG dinucleotide includes a phosphodiester or phosphodiester-like internucleotide linkage, and where the oligonucleotide includes at least one stabilized internucleotide linkage. The DNA oligonucleotide includes at least three unmethylated CpG dinucleotides, where the at least three unmethylated CpG dinucleotides include a phosphodiester or phosphodiester-like internucleotide linkage, and where the oligonucleotide includes at least one stabilized internucleotide linkage. The antiviral agent is linked to an internal nucleotide or to a terminal nucleotide. The... ..5' terminal nucleotide. The composition further comprises a second anti-viral agent formulated with the immunostimulatory oligonucleotide. The second anti-viral agent is linked to the immunostimulatory oligonucleotide. The composition includes a microparticle housing the immunostimulatory oligonucleotide and the anti-viral agents. The composition

CpGinternucleotidelinkage.txt

includes a liposome housing the immunostimulatory RNA oligonucleotide and the anti-viral agent. The DNA oligonucleotide is not an abasic containing oligonucleotide. The DNA oligonucleotide is not an adapter oligonucleotide. A composition comprises an immunostimulatory RNA oligonucleotide and an anti-viral agent where the anti-viral agent is associated with the immunostimulatory RNA oligonucleotide. The composition includes a microparticle housing the immunostimulatory RNA oligonucleotide and the anti-viral agent. The composition includes a liposome housing the immunostimulatory RNA oligonucleotide and the anti-viral agent. The anti-viral agent is one or more nucleotide analogs. The composition further comprises a nuclease susceptible site between the immunostimulatory RNA oligonucleotide and the anti-viral agent. The composition further comprises a pharmaceutical carrier. The... ..9 ligand linked to an anti-viral agent. The TLR7/8/9 ligand is an immunostimulatory oligonucleotide. The TLR7/8/9 ligand is linked to the anti-viral agent directly or... ..immune-stimulating anti-viral composition. Screening for molecules containing an anti-viral agent and an immunostimulatory oligonucleotide that have anti-viral activity, comprises isolating immune cells from a virus-infected patient... ..are cultured. Treating cancer comprises administering to a subject having cancer a composition of an immunostimulatory oligonucleotide and an anti-viral agent in an amount to treat the cancer. The anti-viral agent is linked to the immunostimulatory oligonucleotide. The anti-viral agent is ribavirin. The immunostimulatory oligonucleotide is an RNA oligonucleotide or a DNA oligonucleotide, where the DNA oligonucleotide is an... ..bacterial infection comprises administering to a subject having a bacterial infection a composition of an immunostimulatory oligonucleotide and an anti-viral agent in an amount to treat the bacterial infection. ACTIVITY... E.C. Numbers: Descriptors: pharmaceutical comp., immunostimulatory oligonucleotide, appl. cancer, virus, bacterial infection therapy cytostatic virucide hepatotropic antiinflammatory tumor (27, 26)

22/3,K/6 (Item 5 from file: 357) Links

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0443997 DBA Accession No.: 2008-02194 PATENT

Obtaining immunoglobulin Y antibodies useful for treating e.g. diarrhoea involves generating antibodies by immunizing avian organisms with composition comprising antigens, and contacting with different antibodies involving immunoglobulin Y antibody for prognosing and treating diarrhoea, dysentery, cholera, Streptococcus mutans serotype C infection, cystic fibrosis and upper respiratory infection

Author: LARSEN J B

Patent Assignee: BEIERHOLM HOLDING APS JANUS 2007

Patent Number: WO 200779755 Patent Date: 20070719 WPI Accession No.: 2008-B14418 (200807)

Priority Application Number: DK 200654 Application Date: 20060112

National Application Number: WO 2007DK18 Application Date: 20070112

Language: English

Abstract: ...thioether bonds, single carbon bonds, double carbon bonds, triple carbon bonds, disulfide bonds, sulfide bonds, phosphodiester bonds, oxime bonds, imine bonds, and/or imide bonds; and the chemical moiety does not... ..thioether bonds, single carbon bonds, double carbon bonds, triple carbon bonds, disulfide bonds, sulfide bonds, phosphodiester bonds, oxime bonds, imine bonds, and/or imide bonds. The bonds joining individual peptide residues... ..to self organize into liposomes), OM-174 (lipid A derivative), CpG motifs (synthetic oligonucleotides containing immunostimulatory CpG motifs), modified bacterial toxins, LT and CT, with non-toxic adjuvant effects, Endogenous human... ..acylation of conserved lysine residues with a biotin appendage) and/or e.g. glutamylation (covalent linkage of glutamic acid residues to tubulin and some other proteins) and/or e.g. glycylation (covalent linkage of one to more than 40 glycine residues to the tubulin C-terminal tail) and... ..include modifications by the addition of other proteins or peptides such as ISGylation (the covalent linkage to the ISG 15 protein (Interferon-Stimulated Gene 15)) and/or SUMOylation (the covalent linkage to the SUMO protein

CpGinternucleotidelinkage.txt  
(Small Ubiquitin-related Modifier)) and/or ubiquitination (the covalent linkage to the protein ubiquitin); or change of the chemical nature of amino acids, such as...  
...acid or asparagine to aspartic acid); or structural changes such as disulfide bridges (the covalent linkage of two cysteine amino acids) and/or proteolytic cleavage (cleavage of a protein at a peptide bond). The primary and secondary antigens may differ in peptide linkage by specific linkers forming di-, tri-, tetra-, penta-, hexa-, hepta-, octa-, nona- or deca-polypeptides...  
E.C. Numbers:

22/3,K/7 (Item 6 from file: 357) Links

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0426609 DBA Accession No.: 2007-12547 PATENT

New immunostimulatory oligonucleotides for generating immune response for treating or preventing e.g. cancer, autoimmune disorder, airway inflammation, inflammatory disorders, skin disorders, allergy and asthma involving vector-mediated gene transfer and expression in host cell for use in cancer, autoimmune disorder, airway inflammation, inflammatory disorder, skin disorder, allergy and asthma therapy

Author: AGRAWAL S; KANDIMALLA E; YU D; BHAGAT L

Patent Assignee: IDERA PHARM INC 2007

Patent Number: US 20070093439 Patent Date: 20070426 WPI Accession No.: 2007-360722 ( 200734 )

Priority Application Number: US 257769 Application Date: 20051025

National Application Number: US 257769 Application Date: 20051025

Language: English

New immunostimulatory oligonucleotides for generating immune response for treating or preventing e.g. cancer, autoimmune disorder, airway...

Abstract: DERWENT ABSTRACT: NOVELTY - Immunostimulatory oligonucleotides are new.

DETAILED DESCRIPTION - Immunostimulatory oligonucleotides of formulae

5'-TGTCR'TTCTC-X-CTCTTR'CTGT-5' (Ia), 5'-GTCR'TTCTC-X-...-5' (II), are new.

R=2'-deoxy-7-deazaguanosine; R'=arabinoguanosine; X=glycerol linker;

o=phosphodiester linkage. An INDEPENDENT CLAIM is also included for a pharmaceutical composition (C1) comprising: the immunostimulatory oligonucleotide and a carrier.

WIDER DISCLOSURE - Also disclosed is an immunostimulatory agent comprising greater than or equal to 2 oligonucleotide branches linked together, of formula 5'-(N...

...sugar (all optionally covalently linked to a non-nucleotidic linker); p=natural or modified internucleoside linkage; Y=cytosine, 5-hydroxycytosine,

N4-alkyl-cytosine, 4-thiouracil, other non-natural pyrimidine nucleoside, or...

...antigen, allergen, chemotherapeutic agent or adjuvant. Preparation (disclosed): No general method for preparation of the immunostimulatory oligonucleotides is given. ACTIVITY - Cytostatic; Immunostimulant; Immunosuppressive; Respiratory-Gen.;

Antiinflammatory; Dermatological; Antiallergic; Antiasthmatic; Antimicrobial. An...

...to obtain the blood level of the oligonucleotide of (0.0001 - 10)  $\mu$ M. ADVANTAGE

- The immunostimulatory oligonucleotides are less expensive to make than the existing immunostimulatory oligonucleotides; such as CpG dinucleotide containing oligonucleotides, and comprise short oligonucleotide-based agents that are...

E.C. Numbers:

Descriptors: recombinant immunostimulatory oligonucleotide prep., isol., vector-mediated gene transfer, expression in host cell, oligonucleotide, appl., cancer, autoimmune...

22/3,K/8 (Item 7 from file: 357) Links

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0424351 DBA Accession No.: 2007-10289 PATENT

New composition comprises double-stranded short interfering ribonucleic acid (siRNA), useful for treating cancer, infectious diseases, autoimmune diseases, transplant rejection, or allergy or asthma sense and antisense ds short interfering RNA for RNA interference and cancer, infectious disease, autoimmune disease, transplant rejection, allergy or asthma gene therapy

# CpGinternucleotidelinkage.txt

Author: UHLMANN E; JURK M; VOLLMER J; SCHETTER C; WEBER M

Patent Assignee: COLEY PHARM GMBH; QIAGEN GMBH 2007

Patent Number: WO 200731877 Patent Date: 20070322 WPI Accession No.: 2007-283939 ( 200727 )

Priority Application Number: US 717597 Application Date: 20050916

National Application Number: WO 2006183356 Application Date: 20060915

Language: English

Abstract: ...O-methyl nucleotide, is new. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are: (1) a method for reducing immunostimulatory potential of a double-stranded siRNA, the siRNA having a sense strand and an antisense... ..modification at the 3'end of the sense strand. Preferably, the sense strand has a phosphodiester backbone. The sense strand has a stabilized backbone comprising at least one stabilized internucleotide linkage selected from thioformacetal, phosphorothioate, methylphosphonate, boranophosphonate, or formacetate. Preferred Method: Reducing immunostimulatory potential of a double-stranded siRNA, the siRNA having a sense strand and an antisense... ..biological data given. MECHANISM OF ACTION - Gene Therapy. USE - The composition is useful for reducing immunostimulatory potential of a double-stranded siRNA, and for reducing expression of a gene having a...

E.C. Numbers:

Descriptors: sense, antisense ds short interfering RNA, 2' modification, locked nucleic acid, 2'-O-methyl nucleotide, phosphodiester backbone, appl. RNA interference, cancer, infectious disease, autoimmune disease, transplant rejection, allergy, asthma, pancreas cancer...

? d s

Set	Items	Description
S1	295	S E1-E25
S2	3	S S1 AND INTERNUCLEOTIDE
S3	26	S E2-E4
S4	2	S S3 AND INTERNUCLEOTIDE
S5	19	AU=VOLLMER, JORG FROM 5, 6, 24, 34, 40, 41, 45, 50, 65, 71, 72, 73, 76, 98, 103, 136, 143, 144, 154, 155, 156, 162, 172, 305, 369, 370, 393, 399, 434, 28, 35, 44, 91, 110, 135, 164, 185, 357, 391, 467, 8, 99, 266, 315, 358, 138, 149, 159, 444
S6	1	S S5 AND INTERNUCLEOTIDE
S7	562	S E17-E18
S8	4	S S7 AND INTERNUCLEOTIDE
S9	63	S E1-E4
S10	0	S S9 AND INTERNUCLEOTIDE
S11	63	S E1-E3
S12	0	S S11 AND INTERNUCLEOTIDE
S13	12	S S11 AND PHOSPHO?
S14	165	S E1-E9
S15	1	S S14 AND INTERNUCLEOTIDE
S16	2	S E1-E3
S17	0	S (PHOSPHO? AND (INTERNUCLEOTIDE ADJ LINKAGE) AND STABILIZE AND IMMUNOSTIMULATORY)
S18	0	S (PHOSPHO? AND (INTERNUCLEOTIDE(W)LINKAGE) AND STABILIZE AND IMMUNOSTIMULATORY)
S19	0	S (IMMUNOSTIMULATORY AND (NUCLEOTIDE(W)LINKAGE) AND MODIF? AND STABIL?)
S20	236	S IMMUNOSTIMULATORY AND LINKAGE
S21	19	S S20 AND PHOSPHODIESTER
S22	19	RD (unique items)